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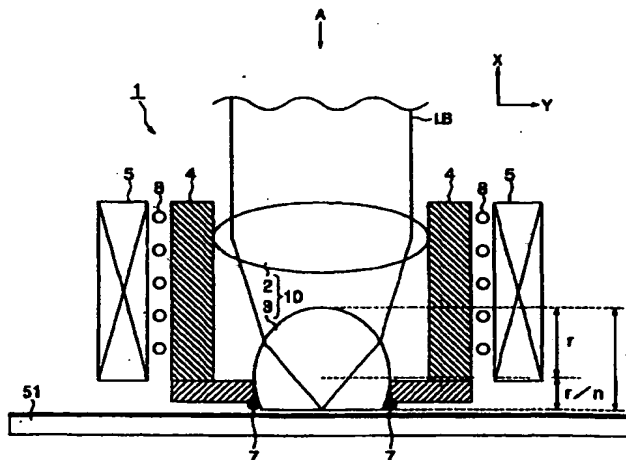
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(54) **Apparatus and method for position control of optical system and storage and reproduction apparatus**

(57) A position control apparatus of an optical system capable of positioning a lens at a high accuracy in a near-field optical system using a solid immersion lens. An objective lens 2 and a solid immersion lens are fixed to a lens holder 4. The lens holder 4 is moved by a track-

ing actuator 5 in the tracking direction of an optical disk 51 and is moved by a focus actuator 8 in the focus direction. The focus actuator 8 is controlled on the basis of the electrostatic capacitance occurring between the solid immersion lens 3 and the optical disk 51.

FIG. 1



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EUROPEAN SEARCH REPORT

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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A	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 12, 31 October 1998 (1998-10-31) & JP 10 188333 A (HITACHI MAXELL LTD), 21 July 1998 (1998-07-21) * abstract; figure 11 *	1-28	
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A	TERRIS B D ET AL: "NEAR-FIELD OPTICAL DATA STORAGE" APPLIED PHYSICS LETTERS, AMERICAN INSTITUTE OF PHYSICS. NEW YORK, US, vol. 68, no. 2, 8 January 1996 (1996-01-08), pages 141-143, XP000552692 ISSN: 0003-6951 * column 3 - column 4; figure 1 *	1-28	TECHNICAL FIELDS SEARCHED (Int.Cl.7) G11B
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 27 May 2002	Examiner Schenke, C
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons A : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82